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10/743,839	12/24/2003	Damien (Yat Shun) Yu	VTX0318-US	1129

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EXAMINER

MURALIDAR, RICHARD V

ART UNIT	PAPER NUMBER
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2838

MAIL DATE	DELIVERY MODE
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07/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/743,839	Applicant(s) YU ET AL.	
	Examiner Richard V. Muralidar	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7, 9-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9-18 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

[b] The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, and 21 are rejected under 35 U.S.C. 102[b] as being anticipated by Small [US-6326766].

With respect to claim 1 [amended], Small discloses an apparatus for reducing the potential for electric shock [Abstract lines 1-2; col. 4 lines 49-67 and col. 5 lines 1-13], comprising: a body [Fig. 13 battery charger case 200]; a battery drawer slidably mounted in the body [Fig. 11 rechargeable pack 100 is a drawer that contains rechargeable batteries 111A-111E] and being operable to have an open state [when expelled from charger 200, as shown in Fig. 19] and a closed state [when inserted into charger 200, as shown in Fig. 20], the battery drawer having a cavity [Fig. 11 top half 152 has a cavity that holds the batteries] and a plurality of contacts [Fig. 11 electrical contacts 104 and 105] arranged to receive at least one battery [Fig. 11 batteries 111A-E]; a battery drawer cover [Fig. 19 charger door 210] separately secured inside the body [Figs. 19 and 20, elements 220 and 222 show a catch/release mechanism on the cover 210 that **secures** the drawer cover **inside** the body 200. The securing of the cover occurs inside the body, because both elements 220 and 222 are within/inside the body

Art Unit: 2838

when the cover 210 is closed]; wherein the battery drawer cover extends at least over the top of the at least one battery in the battery drawer [in the closed position shown in Fig. 20, cover 210 will extend over the whole of battery 111E shown in Fig. 11, including the top], and an ejection mechanism [Fig. 17 catch mechanism 224, finger release 225, spring loaded contact strings 238A and spring loaded conductive strip portion 240A forms the left side of the mechanism, the same is repeated on the right side] operable to eject the battery drawer from the body and place the battery drawer in the open state, wherein when the battery drawer is in the open state the plurality of contacts are disengaged from any power source from within the body [col. 5 lines 13-16]; and wherein the ejection mechanism comprises a biasing means mounted to the battery drawer cover [Fig. 20, the biasing means 7 mounted to the drawer cover is lever arm 215, which is biased by spring 233].

With respect to claim 2 [original], Small discloses that when the battery drawer is in the closed state the plurality of contacts are connected to the any power source from within the body [Fig 18; col. 5 lines 13-16].

With respect to claim 3 [original], Small discloses the power source comprises a battery charging circuit [Fig. 24; col. 6 lines 42-43].

Claims 4-6 [cancelled by applicant].

With respect to claim 7, [previously presented] Small discloses the biasing mechanism comprises at least one spring [Fig. 20, the biasing means mounted to the drawer cover is lever arm 215, which is biased by spring 233].

With respect to claim 21 [new], Small discloses that the battery drawer is held captive in the open state [the battery pack 100 is held captive even after the cover 210 is open- col. 12 lines 64-67 and col. 13 lines 1-6; the battery pack 100 can be considered as open when cover 210 is open because the battery pack is physically accessible at that point].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103[a] which forms the basis for all obviousness rejections set forth in this Office action:

[a] A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103[a] as being unpatentable over Small [6326766] in view of Kfoury [6049192].

With respect to claim 10, Small discloses the apparatus of claim 1, but does not disclose the body of a cordless telephone base station.

Kfoury discloses the body is a body of a cordless telephone base station [Fig. 1].

Small and Kfoury are analogous battery chargers with openings to accept rechargeable batteries.

At the time of the invention it would have been obvious to one of ordinary skill in the art to add a combination ejector and electrical circuit maker to a cordless telephone base station for the benefit of having the ability to simultaneously charge a battery for the rechargeable phone, to do so in a safe manner in which the users could not contact

the electrical circuitry when the battery was withdrawn, and to provide a means for holding the battery securely in place whilst charging, then releasing it when finished.

Claims 11-16 are rejected under 35 U.S.C. 103[a] as being unpatentable over Small [6326766] in view of Kfoury [6049192] in further view of Wierzbicki [U.S. 6014009].

With respect to claim 11, [amended] Small discloses a combination ejector and electrical circuit maker disposed inwardly within the body with respect to any rechargeable battery held in the battery drawer [Fig. 17 catch mechanism 224, finger release 225, spring loaded conductive strip 259- left and right elements 253 and 254 on catch arm 224 is *inward* with respect to the battery, because 253 and 254 are within the confines of the outer perimeter of the battery once the battery is inserted (as shown in Fig. 17). Elements 253 and 254 engage corresponding notches in the side of the battery to keep the battery in-place], wherein the combination ejector and electrical circuit maker establishes an electric circuit between the battery charging circuit [Fig. 24; col. 6 lines 42-43] and the at least one rechargeable battery [Fig. 1 battery 100] when the battery drawer is in a closed state, operates to eject the battery drawer from the body, and electrically opens the electric circuit between the battery charging circuit and the at least one rechargeable battery when the battery drawer is in an open state [once the battery is released by depressing finger release 225, power is disconnected for safety- col. 14 lines 23-67; there will also be some movement of the battery towards the exit/door from the tension/bias created by spring-loaded conductive strip 259, Figs. 17

Art Unit: 2838

and 18. This ejection movement will be *small*], and wherein the battery drawer is held captive in the body in the open state [Fig. 18 the tension of spring loaded conductive strip 240B against battery pack contact 104 will tend to hold the battery pack 100 in place after the cover 210 is released to the open position].

Small does not disclose a cordless telephone apparatus having a stand-by battery recharging system, or that there is a large ejection movement that pushes the battery outwards when released from the charger.

Kfoury discloses a cordless telephone apparatus having a stand-by battery recharging system [Fig. 1], comprising: a base station having a body [Fig. 1 main housing 103]; a battery charging circuit disposed in the body [Fig 4 printed circuit 404 is a charger]; a battery drawer slidably mounted in the body [Figs. 7 and 8 battery door housing 104, cover 106, and arm beams 472 and 474 form the drawer], the battery drawer being configured to receive and hold at least one rechargeable battery [Fig. 2 battery 200]. Kfoury also discloses that the battery drawer is held captive in the body in the open state [Fig. 4, stops 478 and 578 prevent the drawer from coming all the way out of the body; col. 4 lines 21-24].

Small and Kfoury are analogous battery chargers that can accept a battery into a housing for charge. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the battery drawer with a combination ejector and electrical circuit maker to charge a battery for the rechargeable phone, to do so in a safe manner in which the users could not contact the electrical circuitry when the battery was withdrawn, and to provide a means for holding the battery securely in place whilst

Art Unit: 2838

charging, then releasing it when finished, for enhanced safety to the users. It would been obvious to incorporate a means of preventing the battery drawer from coming all the way in order to prevent accidentally dropping the battery from the charger and causing damage. Kfoury does not disclose that there is a large ejection movement that pushes the battery outwards when released from the charger.

Wierzbicki discloses the use of spring contacts [Fig. 1A springs 55 and 57] that acts to push the battery drawer [Fig. 3, battery 27] out of the electronic device [Fig. 1A, device 11] once the battery is ejected.

Small, Kfoury, and Wierzbicki are analogous battery charging devices for charging rechargeable batteries, which are slide into the charger housings.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the use of spring contacts for combined ejection/electrical contact making/breaking means to Small and Kfoury, as taught by Wierzbicki, for the benefit using a common and widely known method of accomplishing efficient contact make/break ability, as well as rapid battery ejection from the charger. Rapid make/break capability of the charging circuit to the battery is a function of safety- the longer it takes to do this, the greater the chance of arcing between contacts. Rapid battery ejection from of the battery from the charging position to the removal position is a function of convenience- the faster this happens, the sooner the user can remove the battery.

With respect to claim 12 [amended], Small discloses a battery drawer cover [Fig. 11 top half 152], wherein the battery drawer cover extends at least over the top of the at least one rechargeable battery in the battery drawer [in the closed position shown in Fig.

20, cover 210 will extend over the whole of battery 111E shown in Fig. 11, including the top]; and at least one spring [Fig. 14 spring 233, Fig. 17 spring 256].

With respect to claim 13 [original], Small discloses that at least a substantial portion of the combination ejector [Fig. 14 spring 233] and electrical circuit maker [Fig. 19 arc shaped lever arm 215 with latch 219 engages spring contacts 235A] is mounted on the battery drawer cover.

Kfoury discloses at least a substantial portion of the combination ejector and electrical circuit maker is mounted on the battery drawer cover [Figs. 7 and 8 springs 440 and 442 with arm beams 472 and 474 and contact block 420].

Small and Kfoury are analogous battery chargers that can accept a battery into a housing for charge. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the battery drawer with a combination ejector and electrical circuit maker to charge a battery for the rechargeable phone, to do so in a safe manner in which the users could not contact the electrical circuitry when the battery was withdrawn, and to provide a means for holding the battery securely in place whilst charging, then releasing it when finished, for the purpose of enhancing charging safety to the users and to prevent the battery from moving whilst charging, which could conceivably cause damage.

With respect to claim 14, [original] Small discloses at least one spring [Fig. 19, spring 233].

With respect to claim 15 [original], Small discloses a substantial portion of the combination ejector and electrical circuit maker, but does not disclose that this is mounted on a battery drawer.

Kfoury discloses a battery drawer, in conjunction with a telephone charger base [Fig. 1].

Small and Kfoury are analogous battery chargers that can accept a battery into a housing for charge. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the battery drawer with a combination ejector and electrical circuit maker to charge a battery for the rechargeable phone, to do so in a safe manner in which the users could not contact the electrical circuitry when the battery was withdrawn, and to provide a means for holding the battery securely in place whilst charging, then releasing it when finished, for the purpose of enhancing charging safety to the users and to prevent the battery from moving whilst charging, which could conceivably cause damage.

With respect to claim 16 [original], Small discloses the combination ejector and electrical circuit maker comprises an electrically conductive contact folded in such a way as to maintain the at least one battery within the battery drawer and to bias the battery drawer toward an exterior of the body [Fig. 17 spring loaded strips 240A and B are folded in this manner and holds the battery tightly in placed when the battery is engaged; spring loaded conductive strip 259 shown in Fig. 18 pushes the battery out with a small movement when the finger releases 225 and 226 are depressed]. Small

does not disclose the ejector is mounted on a battery drawer, or that the ejection movement is large.

Kfoury discloses a battery drawer, in conjunction with a telephone charger base [Fig. 1].

Small and Kfoury are analogous battery chargers that can accept a battery into a housing for charge. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the battery drawer with a combination ejector and electrical circuit maker to charge a battery for the rechargeable phone, to do so in a safe manner in which the users could not contact the electrical circuitry when the battery was withdrawn, and to provide a means for holding the battery securely in place whilst charging, then releasing it when finished, for the purpose of enhancing charging safety to the users and to prevent the battery from moving whilst charging, which could conceivably cause damage. Kfoury does not disclose that the ejection movement is large.

Wierzbicki discloses the use of spring contacts [Fig. 1A springs 55 and 57] that acts to push the battery drawer [Fig. 3, battery 27] out of the electronic device [Fig. 1A, device 11] once the battery is ejected.

Small, Kfoury, and Wierzbicki are analogous battery charging devices for charging rechargeable batteries, which are slide into the charger housings.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the use of spring contacts for combined ejection/electrical contact making/breaking means to Small and Kfoury, as taught by Wierzbicki, for the

Art Unit: 2838

benefit using a common and widely known method of accomplishing efficient contact make/break ability, as well as rapid battery ejection from the charger. Rapid make/break capability of the charging circuit to the battery is a function of safety- the longer it takes to do this, the greater the chance of arcing between contacts. Rapid battery ejection from of the battery from the charging position to the removal position is a function of convenience- the faster this happens, the sooner the user can remove the battery.

Claims 9 and 17, 18, 20, 22 and 23 are rejected under 35 U.S.C. 103[a] as being unpatentable over Small [U.S. 6326766] in view of Wierzbicki [U.S. 6014009].

With respect to claim 9 [amended], Small discloses the apparatus of claim 1, but does not disclose that a portion of at least one of the plurality of contacts extends beyond the battery drawer and functions as the ejection mechanism [i.e. is a spring; see response to claim 17 below]

With respect to claims 17 and 22[amended], Small discloses a battery holding apparatus [Fig. 13, battery pack charger 200], comprising: a drawer [Fig. 11 rechargeable pack 100 is a drawer that contains rechargeable batteries 111A-111E] having a front face and sides, the sides respectively having a flange [Figs. 1 and 2, the L shaped tabs 128 and 129 are flanges that are used to affix the rechargeable battery pack 100 to the inside of the housing 200] extending therefrom; at least one contact [Fig. 11, contact 104/146] having front-facing [Fig. 11, metal contacts 146 are the front/inside facing contacts] and back-facing portions [Figs. 1, 2, 11, electrical contacts 104 or 105 are the back facing/outside contacts], the front-facing portion being in contact with a terminal of a battery [Fig. 11, metal contact 146] when the drawer holds a

battery; an extension portion that extends beyond the at least one contact and in a direction away from the front face [Fig. 11, the perimeter lip of bottom half 150 is an extension portion- see drawing of reproduced below]; and a battery drawer cover [Fig. 19, cover 210] having at least one protrusion extending over the extension portion [Fig. 19, lever arm 215 extends over the perimeter lip of bottom half 150], the protrusion having at least one spring [Figs. 19 and 20, spring 233].

Small does not disclose that when the battery drawer is closed, the spring is compressed between the protrusion and the back-facing portion of the electrical contact, and that said spring pushes the battery away from the protrusion when the drawer is released (i.e. the spring functions to ejects the drawer and establishes electrical connection to the battery in the closed state).

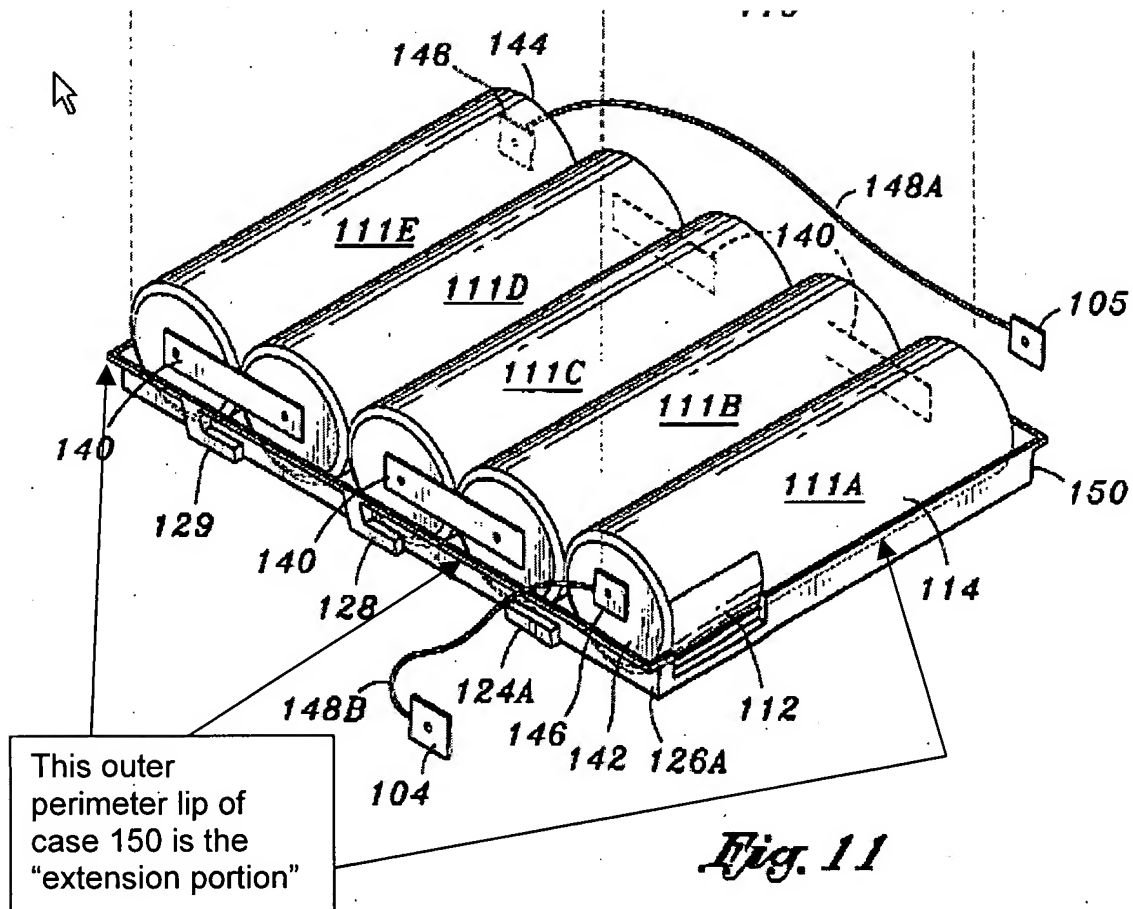
Wierzbicki discloses a battery drawer cover [Fig. 1A, front end wall 19] with a protrusion [Fig. 1A, spring 55 protrudes from the front wall cover into battery cavity 15] arranged to come into contact with the back-facing portion of the at least one contact [Fig. 7a, the corresponding external contact on rechargeable battery 27 is the back contact], the at least one spring [Fig. 7a, spring 57; col. 5 lines 32-39] being in electrical contact with a battery charging circuit, wherein, when the battery drawer is in a closed state, the at least one spring is compressed [Fig. 8D, spring 57 is compressed when the battery 27 is fully inserted into electronic device 11] between the protrusion and the back-facing portion of the at least one contact such that electrical power is provided to the at least one contact, and wherein, when the battery drawer is released to be in an open state, the at least one spring acts to push the battery drawer away from the

Art Unit: 2838

protrusion such that any electrical circuit previously established is opened [Fig. 2, when released, rechargeable battery 27 is pushed out of electronic device 11 breaking electrical contact with the internal charging circuit].

Small and Wierzbicki are analogous battery charging devices that accept rechargeable batteries into an inner cavity in order to accomplish charging, then manually [by the user] ejects them when finished.

At the time of the invention it would have been obvious to one of ordinary skill in the art to specify spring compression with electrical make/break for the charging circuit between the protrusion and the back-facing portion of the electrical contact, as taught by Wierzbicki, in order to push the battery away from the protrusion when the drawer is released, to allow the battery to break the charging contacts and rapidly exit the device housing.



Small's [U.S. 6326766] Fig. 11 Reproduced

Front-acting spring compression are a well-known, rapid and resilient means of expelling the battery from the charger as compared to the side-acting spring loaded strips 240A/B used by Small in Fig. 17. The benefits of this combination therefore include rapid-break capability between the charger circuit and the battery once the finger release catch is depressed, which further helps reduce issues with arcing.

With respect to claim 18 [original], Small discloses that the battery drawer cover [Fig. 22, cover 210 is mounted to charger body 200] is mounted to a body.

Claim 19 [cancelled by applicant].

With respect to claim 20 [original], Small discloses that the front face [Fig. 23 shows the front and rear faces of rechargeable pack 100] is flush with a body [the inner cavity of charger 200] when the battery drawer is in the closed state [Figs. 22 and 23, the inner wall of rechargeable pack 100 is flush with the rear wall of the insides of charger 200, and the outer wall is flush with the front wall, as outlined by battery cover 210].

With respect to claim 23 [new], Small discloses the battery drawer cover extends at least over the top of the at least one battery in the battery drawer in the closed state [in the closed position shown in Fig. 20, cover 210 will extend over the whole of battery 111E shown in Fig. 11, including the top].

Response to Arguments

Applicant's arguments filed 05/15/2007 have been fully considered but are not persuasive.

Applicant comments on page 8 of **REMARKS** that Small [U.S. 6326766] does not teach a battery drawer cover that is secured within the body. Applicant further comments on page 9 that Small's cover 210 is not secured inside a body, but rather forms a portion of the outside of body 210, and also that 210 is not secured within the body. The examiner agrees with this assessment; however, applicant's claim 1 language cites "*a battery drawer cover separately secured inside the body*" The examiner points out that this does not positively convey that the battery drawer cover itself is completely inside the body; only that it be *secured inside* the body. Figs. 19 and 20, elements 220 and 222 show a catch/release mechanism on the cover 210 that **secures** the drawer cover **inside** the body 200. The securing of the cover occurs inside the body, because both elements 220 and 222 are within/inside the body when the cover 210 is closed.

Applicant comments on page 10 that Small does not teach a combination ejector and electrical circuit maker *disposed inwardly* within the body with respect to any rechargeable battery held in the battery drawer, as recited in claim 11. Applicant continues on to state that in Small, the release catches 224 and 225 are *disposed outwardly* with respect to the battery. The examiner sees no such differences between the applicant's drawings shown in Fig. 2-6, versus what is shown in Small's Fig. 17. Contrary to what the applicant is saying, left and right elements 253 and 254 (which are

Art Unit: 2838

a part of catch arm 224) are *inward* with respect to the battery, because 253 and 254 are within the confines of the outer perimeter of the battery once the battery is inserted (as shown in Fig. 17). 253 and 254 engage corresponding notches in the side of the battery to keep the battery in-place.

Applicant comments on page 11 that "Wierzbicki does not disclose that a battery drawer is being out of the device; rather, only the battery itself is being pushed out." Examiner note that Fig. 1B shows a top view picture of the battery drawer/cartridge, upon which two springs 55 and 57 are shown on top, that serve to push the entire drawer out of the body.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard V. Muralidar whose telephone number is 571-272-8933. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RVM
7/18/2007


KARL EASTHOM
SUPERVISORY PATENT EXAMINER